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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/522,530	10/12/2005	Antonio Mileo	05788.0343	7507

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EXAMINER
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CHU, CHRIS H

ART UNIT	PAPER NUMBER
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2874

DATE MAILED: 09/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/522,530

Applicant(s)

MILEO ET AL.

Examiner

Chris H. Chu

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 06 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 21-41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 21-23, 25-37 and 39-41 is/are rejected.
- 7) ☒ Claim(s) 24 and 38 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 January 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Response to Amendment*

Applicant's Amendment filed July 6, 2006 has been fully considered and entered.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 21-23, 25-28, 30-37 and 39-41 are rejected under 35 U.S.C. 102(b) as being anticipated by Nakahara et al. which the applicant has listed on the Information Disclosure Statement.**

Regarding claims 21, 22, 30, 39 and 41, Nakahara et al. discloses an optical fiber preform elongation process and apparatus for elongating, comprising heating the preform so as to soften one region thereof; elongating the preform by submitting the preform to a traction; determining, during the step of elongating, the preform diameter in at least one measuring point along the preform and controlling the step of elongating on the basis of the determined diameter; measuring, during the step of elongating, at least a geometrical parameter of the preform which is different from the determined diameter by detecting the profile of at least a portion of the softened region, controlling, during the step of elongating, the position of said at least one measuring point according to the

measured geometrical parameter, and varying the at least one measuring point according to the measured geometrical parameter in the Purpose and Constitution sections. The position of the point to complete deformation is equated to the geometrical parameter, which as disclosed by Nakahara et al. is determined from the relationship between the zone in which the diameter of the rod varies and the zone having uniform diameter. Since the geometrical parameter is the position of the point to complete deformation, which is a position along the preform and not a diameter of the preform, it is different from the determined diameter.

Regarding claims 25, 26, 31 and 32, Nakahara et al. also discloses determining a profile of the softened region by capturing a digital image and detecting a predetermined number of points along the profile of the preform and interpolating the points in the Constitution section.

Regarding claims 23 and 37, Nakahara et al. also discloses detecting a softened region final point at the point to complete the deformation, and controlling the position of the measuring point by measuring the diameter at a predetermined distance from the softened region final point. Since the diameter at the point to complete the deformation is desired, the predetermined distance is zero.

Regarding claims 27 and 33, Nakahara et al. also discloses comparing the determined diameter with a target diameter and controlling the elongation by controlling the speed at which the preform is pulled by traction in the Constitution section.

Regarding claim 28, Nakahara et al. also discloses feeding the preform to a furnace at a first speed, and submitting the preform to a traction which comprises pulling

the preform out at a second speed, wherein controlling the elongating comprises controlling one among the first and second speed in the Constitution section.

Regarding claims 34 and 36, Nakahara et al. also discloses determining the preform diameter by controlling the position of the measuring point according to the detected profile, since the point to complete the deformation is desired which is defined as between the zone in which the diameter varies and the zone having uniform diameter.

Regarding claim 35, Nakahara et al. also discloses controlling the target diameter according to the detected profile since the diameter at the point to complete deformation is compared to a permissible range in the Constitution section.

Regarding claim 40, Nakahara et al. discloses an apparatus for elongating an optical fiber preform, comprising a monitoring device for obtaining information on geometrical parameters of the preform being elongated; said monitoring device comprising an image capturing device (see camera 8) for obtaining a profile of at least a portion of a softened region of the preform; and a processing device (see optimum outer diameter processor 11) for analyzing the profile for extracting information on the preform geometrical parameters; and a control device (see outer diameter controlling device 12) for controlling at least a location of a measuring point on the preform using the preform geometrical parameters information, wherein the geometrical parameters information is different than a preform diameter determined at the measuring point in the Purpose and Constitution sections. Similar to the reasoning used in the rejection of claim 21 above, the geometrical parameters could be equated to the positions of the zones in which the

diameter varies and in which the diameter is uniform, which is different from the diameter measured at the measuring point.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakahara et al. which the applicant has listed on the Information Disclosure Statement.**

Regarding claim 29, Nakahara et al. teaches the claimed invention except for specifically stating a movable heater at a first speed. Nakahara et al. does however, teach controlling the elongation of the preform by pulling one end of the preform at a second speed. However, movable heaters are well known in the art and consequently, one having ordinary skill in the art at the time the invention was made would have found it obvious to use such a heater for the purpose of moving either the heater or the preform to elongate the perform.

***Allowable Subject Matter***

Claims 24 and 38 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the

limitations of the base claim and any intervening claims for the reasons stated in the office action mailed March 10, 2006.

### ***Response to Arguments***

Applicant's arguments, see pages 12-17, in the amendment filed July 6, 2006 with respect to the rejections of claims under Nakahara et al., in the office action filed March 10, 2006 have been considered but are not persuasive. As stated above in the rejection of claim 21 under Nakahara et al., the geometrical parameter is not the diameter of the preform but rather the position between the zone where the diameter of the rod varies and the zone having a uniform diameter. As such, the geometrical parameter is used to determine the measuring point and is distinguishable from the diameter at the measuring point. Applicant's arguments with respect to the rejections of claims under Kenmochi et al. have been considered and are persuasive. As such, the rejections under Kenmochi et al. have been withdrawn.

### ***Conclusion***

Applicant's amendment necessitated the new rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not

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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chris H. Chu whose telephone number is 571-272-8655. The examiner can normally be reached on 8:30 AM - 5:00 PM Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on 571-272-2344. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general or clerical nature should be directed to the Technology Center 2800 receptionist at telephone number (571) 272-1562.



Chris H. Chu  
Patent Examiner  
September 7, 2006



MICHELLE CONNELLY-CUSHWA  
PRIMARY EXAMINER

9/13/06